

Rock Creek Mine Project Coastal Consistency Analysis

May, 2006

Policy	Alternatives 1 and 2	No Action Alternative
Alaska Coastal Standards		
<p>11 A.A.C. 112.200 Coastal Development</p> <p>(a) In planning for and approving development in or adjacent to coastal waters, districts and state agencies shall manage coastal land and water uses in such a manner that those uses that are economically or physically dependent on a coastal location are given higher priority when compared to uses that do not economically or physically require a coastal location.</p> <p>(b) District and state agencies shall give, in the following order, priority to (1) water-dependent uses and activities; and (2) water-related uses and activities; and (3) uses and activities which are neither water-dependent nor water-related for which there is no practicable inland alternative to meet the public need for the use or activity.</p> <p>(c) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with the standards contained in 33. C.F.R. Parts 320-323, revised as of July 1, 2003.</p>	<p>(a) Alternatives 1 and 2 would not impact uses that are economically or physically dependent on a coastal location.</p> <p>(b) Alternatives 1 and 2 would not impact water-dependent or water-related uses or activities in the project areas.</p> <p>(c) Permit applications have been submitted that detail how the project would comply with USACE regulations.</p>	<p>(a) The No Action Alternative would not impact uses that are economically or physically dependent on a coastal location.</p> <p>(b) The No Action Alternative would not impact water-dependent or water-related uses or activities in the project area and,</p> <p>(c) The No Action Alternative would not involve placement of structures or fill materials into coastal waters.</p>
<p>11 A.A.C. 112.210. Natural Hazard Areas</p> <p>(a) In addition to those identified in 11.A.A.C. 112.900, the department, or a district in a district plan, may designate other natural processes or</p>	<p>(a-b) No natural hazard areas have been designated in the project areas. Seismic risks have been identified as minimal.</p>	<p>(a-d) The No Action Alternative would not involve development in natural hazard areas.</p>

<p>adverse conditions that present a threat to life or property in the coastal area as natural hazards. Such designations must provide the scientific basis for designating the natural process or adverse condition as a natural hazard in the coastal area, along with supporting scientific evidence for the designation.</p> <p>(b) Areas likely to be affected by the occurrence of a natural hazard may be designated as natural hazard areas by a state agency or, under 11 A.A.C. 114.250(b), by a district.</p> <p>(c) Development in a natural hazard area may not be found consistent unless the applicant has taken appropriate measures in the sitting, design, construction and operation of the proposed activity to protect public safety, services and the environment from potential damage caused by known natural hazards.</p> <p>(d) For purposes of (c) of this section, “appropriate measures in the sitting, design, construction and operation of the proposed activity” means those measures that, in the judgment of the coordinating agency, in consultation with the department’s Division of Geological and Geophysical Surveys, the Department of Community and Economic Development as state coordinating agency for the National Flood Insurance Program under 44 C.F.R. 60.25, and other local and state agencies with expertise, (1) satisfy relevant codes and safety standards; or (2) in the absence of such codes and standards; (A) the project plans are approved by an engineer who is registered in the state and has engineering experience concerning the specific</p>	<p>(c-d) For Alternatives 1 and 2, project facilities would be sited, designed, and constructed to minimize property damage and loss of life as a result of seismic or other natural hazards.</p>	
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natural hazard; or (B) the level of risk presented by the design of the project is low and appropriately addressed by the project plans.		
11 A.A.C. 112.220 Coastal Access District and state agencies shall ensure that projects maintain and, where appropriate, increase public access to, from, and along coastal water.	Alternatives 1 and 2 would not impact public access to, from, or along coastal water.	The No Action Alternative would not impact public access to, from, or along coastal water.
11 A.A.C. 112.230 Energy Facilities (a) The siting and approval of major energy facilities by districts and state agencies must be based, to the extent practicable, on the following standards: (1) site facilities so as to minimize adverse environmental and social effects while satisfying industrial requirements; (3) consolidate facilities; (4) consider the concurrent use of facilities for public or economic reasons; (5) cooperate with landowners, developers, and federal agencies in the development of facilities; (6) select sites with sufficient acreage to allow for reasonable expansion of facilities; (7) site facilities where existing infrastructure, including roads, docks, and airstrips, is capable of satisfying industrial requirements; (8) select harbors and shipping routes with least exposure to reefs, shoals, drift ice, and other obstructions; (9) encourage the use of vessel traffic control and collision avoidance systems; (10) select sites where development will require minimal site clearing, dredging and construction in productive habitats; (11) site facilities so as to minimize the probability, along shipping routes, of spills or other forms of contamination which would affect fishing grounds, spawning grounds, and other	<p>Electric power will be provided to the Rock Creek Mine from an existing facility via a new power line. The new powerline will follow an existing roadway. Electric power for the Big Hurrah Mine will be provided by a small diesel generator, as there are no existing, nearby electric power sources.</p> <p>(a) For both Alternatives 1 and 2, the new power line and new generator have been designed and sited to minimize adverse impacts while satisfying the mine's power requirements. Wetlands and important habitat have been avoided to the greatest extent practicable.</p> <p>(b) Alternatives 1 and 2 do not involve state or federal leases. The alternatives do involve mineral extraction activities authorized by the state and federal permits.</p>	<p>(a) The No Action Alternative would not involve the development of new energy facilities.</p> <p>(b) The No Action Alternative would require issuance of state and federal leases, easements, contracts, rights-of-way or permits for mineral and petroleum resource extraction, and thus would not involve uses of state concern.</p>

<p>biologically productive or vulnerable habitats, including marine mammal rookeries and hauling out grounds and waterfowl nesting areas; (12) site facilities so that areas of particular scenic recreational, environmental, or cultural value, identified in district plans, will be protected; (14) site facilities in areas of least biological productivity, diversity, and vulnerability and where effluents and spills can be controlled or contained; (15) site facilities where winds and air currents disperse airborne emissions that cannot be captured before escape into the atmosphere; (16) select sites so that associated vessel operations or activities will not result in overcrowded harbors or interfere with fishing operations and equipment. (b) The uses authorized by the issuance of state and federal leases, easements, contracts, rights-of-way or permits for mineral and petroleum resource extraction are uses of state concern.</p>		
<p>11 A.A.C. 112.240 Utility Routes and Facilities (a) Utility routes and facilities must be sited inland from beaches and shorelines unless (1) the route or facility is water-dependent or water related; or (2) no practicable inland alternative exists to meet the public need for the route or facility. (b) Utility routes and facilities along the coast must avoid, minimize or mitigate (1) alterations in surface and ground water drainage patterns; (2) disruption in known or reasonably foreseeable wildlife transit; (3) blockage of existing or traditional access.</p>	<p>For both Alternatives 1 and 2, existing utility routes and facilities are used. Short powerlines will be necessary to access the mine sites from the existing utility corridors. These new powerlines shall be sited, designed, and constructed to be compatible with district programs.</p> <p>(a-b) Alternatives 1 and 2 would not involve construction of new utility routes or facilities on beaches, below shorelines, or along the coast.</p>	<p>(a-b) The No Action Alternative would not involve the development of new utility routes or facilities.</p>
<p>11 A.A.C. 112.252 Timber Harvest and Processing</p>	<p>Alternatives 1 and 2 would not involve timber harvest or processing.</p>	<p>The No Action Alternative would not involve timber</p>

<p>A.S. 41.17 (Forest Resources and Practices Act) and the regulations adopted under that chapter with respect to the harvest and processing of timber are incorporated into the program and constitute the components of the program with respect to those purposes.</p>		<p>harvest or processing.</p>
<p>11 A.A.C. 112.260 Sand & Gravel Extraction Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands and spits if there is no practicable alternative to coastal extraction that will meet the public need for the sand or gravel.</p>	<p>Alternatives 1 and 2 would not involve sand or gravel extraction from coastal waters, intertidal areas, barrier islands, or spits.</p>	<p>The No Action Alternative would not involve sand or gravel extraction.</p>
<p>11 A.A.C. 112.270 Subsistence (a) A project within a subsistence use area designated by the department or under 11 A.A.C. 114.250(g) must avoid or minimize impacts to subsistence uses of coastal resources. (b) For a project within a subsistence use area designated under 11 A.A.C. 114 250(g), the applicant shall submit an analysis or evaluation of reasonably foreseeable adverse impacts of the project on subsistence use as part of (1) a consistency review packet submitted under 11 A.A.C. 1101.215; and (2) a consistency evaluation under 15 C.F.R. 930.39, 15 C.F.R. 930.58, or 15 C.F.R.930.76. (c) Repealed 10/29/2004, Register 172. (d) Except in nonsubsistence areas identified under A.S. 16.05.258, the department may, after consultation with the appropriate district, federally recognize Indian tribes, Native corporations, and other appropriate persons or groups, designate areas in which a subsistence use is an important</p>	<p>Subsistence and mining have co-existed in the area for 100 years. Subsistence resources are abundant throughout the region. The project is not expected to adversely impact local resident's subsistence lifestyle.</p> <p>(a) As the mine areas have a relatively small footprint and are currently privately owned and closed to the public, no adverse impact to the substance use priority is expected as a result of Alternatives 1 or 2.</p> <p>(b and d) The project areas for Alternatives 1 and 2 are not located within designated subsistence use areas.</p>	<p>(a) The No Action Alternative would not impact the subsistence use priority.</p> <p>(b and d) The No Action Alternative would not impact subsistence use areas.</p>

<p>use of coastal resources as demonstrated by local usage.</p> <p>(e) For purposes of this section, “federally recognized Indian tribe,” “local usage,” and “Native corporation” have the meanings given in 11 A.A.C. 114.990.</p>		
<p>11 A.A.C. 112.280 Transportation Routes & Facilities</p> <p>Transportation routes and facilities must avoid, minimize or mitigate (1) alterations in surface and ground water drainage patterns; (2) disruption in known or reasonable foreseeable wildlife transit; and (3) blockage of existing or traditional access.</p>	<p>For both Alternatives 1 and 2, existing transportation routes and facilities are used. Short access roads on private lands will be necessary to access the mine sites from the existing transportation corridors. These new roads shall be sited, designed, and constructed to avoid or minimize alterations to surface and groundwater drainage patterns, disruption of wildlife transit, and blockage of existing or traditional access.</p>	<p>The No Action Alternative would not involve construction of new transportation routes or facilities.</p>
<p>11 A.A.C. 112.300 Habitats</p> <p>(a) Habitats in the coastal area which are subject to the program are (1) offshore areas; (2) estuaries; (3) wetlands; (4) tideflats; (5) rocky islands and seacliffs; (6) barrier islands and lagoons; (7) exposed high energy coasts; (8) rivers, streams and lakes and the active floodplains and riparian management areas of those rivers, stream and lakes; and (9) important habitat.</p> <p>(b) The following standards apply to the management of the habitats identified in (a) of this section: (1) offshore areas must be managed to avoid, minimize or mitigate significant adverse impacts to competing uses such as commercial, recreational or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use; (2) estuaries must be</p>	<p>(b) Alternatives 1 and 2 would not impact offshore areas, estuaries, tideflats, rocky islands, seacliffs, barrier islands, lagoons, or exposed high energy coasts.</p> <p>Alternatives 1 and 2 have been designed to limit adverse impact to habitat, particularly wetlands. The habitat types to be affected by the proposed project are widespread across the generally undeveloped region surrounding the mine sites. The proposed project would include the reclamation of Big Hurrah Creek that has been negatively impacted by historical placer mining operations, which would result in a positive impact to this habitat.</p>	<p>The No Action Alternative will not impact the habitats in the coastal area. The stream habitats impacted by historic placer mining operations would remain in the current state.</p>

<p>managed to avoid, minimize or mitigate significant adverse impacts to (A) adequate water flow and natural water circulation patterns; and (B) competing uses such as commercial, recreational or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use; (3) wetlands must be managed to avoid, minimize or mitigate significant adverse impacts to water flow and natural drainage patterns; (4) tideflats must be managed to avoid, minimize or mitigate significant adverse impacts to (A) water flow and natural drainage patterns; and (B) avoid the introduction of competing or destructive species and predators; (6) barrier islands and lagoons must be managed to avoid, minimize or mitigate significant impacts (A) to flows of sediments and water; (B) from the alteration or redirection of wave energy or marine currents that would lead to the filling in of lagoons ore the erosion of barrier islands; and (C) from activities that would decrease the use of barrier islands by coastal species, including polar bears and nesting birds; (7) exposed high-energy coasts must be managed to avoid, minimize or mitigate significant adverse impacts (A) to the mix and transport of sediments; and (B) from redirection of transport processes and wave energy; (8) rivers, streams and lakes must be managed to avoid, minimize or mitigate significant adverse impacts to (A) natural water flow; (B) active floodplains; and (C) natural vegetation within riparian management areas; and (9) important habitat(A) designated under 11A.A.C. 114.250(h) must be managed for</p>		
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<p>the special productivity of the habitat in accordance with district enforceable policies adopted under 11 A.A.C. 114.270(g); or (B) identified under (c)(1)(B) or (C) of this section must be managed to avoid, minimize or mitigate significant adverse impacts to the special productivity of the habitat.</p> <p>(c) For the purposes of this section, (1) “important habitat” means habitats listed in (a)(1)-(8) of this section and other habitat in the coastal area that are (A) designated under 11 A.A.C. 114.250(h); (B) identified by the department as a habitat (i) the use of which has a direct and significant impact on coastal water; and (ii) that is shown by written scientific evidence to be biologically and significantly productive; or (C) identified as state game refuges, state game sanctuaries, state range areas or fish and game critical habitat under A.S. 16.20; (2) “riparian management area” means the area along or around a waterbody within the following distances, measured from the outermost extend of the ordinary high water mark of the waterbody: (A) for the braided portions of a river or stream, 500 feet on either side of the waterbody; (B) for split channel portions of a river or stream, 200 feet on either side of the waterbody; (C) for single channel portions of a river or stream, 100 feet on either side of the waterbody; (D) for a lake, 100 feet of the waterbody.</p>		
<p>11 A.A.C, 112.310 Air, Land & Water Quality Notwithstanding any other provision of this chapter, the statues and regulations of the Department of Environmental Conservation with</p>	<p>Alternative 1 and 2 call for reclaiming the site to a stable condition. Baseline groundwater and surface water quality in the project area has been established through extensive</p>	<p>The No Action Alternative would not impact air, land, or water quality.</p>

<p>respect to the protection of air, land, and water quality, identified in A.S. 46.40.040(b) are incorporated into the program and, as administered by that department, constitute the exclusive components of the program with respect to those purposes.</p>	<p>studies. Alternatives 1 and 2 have been designed to minimize impact to groundwater and surface water quality. Groundwater and surface water monitoring will be ongoing throughout operations and the 30 year post-closure period. Potential adverse impacts to air quality will be minimized by drawing the majority of necessary power for the mine from the existing electrical grid. Air quality modeling will be done as part of the Air Quality Minor Construction Permit and air quality controls will be installed as required to meet air quality standards. All ADEC regulations pertaining to air, land, and water quality shall be adhered to.</p>	
<p>11 A.A.C. 112.320 Historic, Prehistoric, and Archaeological Resources (a) The department will designate areas of the coastal zone that are important to the study understanding or illustration of national, state or local history or prehistory, including natural process. (b) A project within an area designated under (a) of this section shall comply with the applicable requirements as A.S. 41.35.010 – 41.35.240 and 11 A.A.C. 16.010 – 11 A.A.C. 16.900.</p>	<p>(a-b) Archaeological surveys were conducted at both mine sites, and identified a total of 29 cultural resources. Most identified resources are related to historic mining activities. No prehistoric or archaeological resources were identified. At the Rock Creek Mine site, no adverse impact is expected to cultural resources. At the Big Hurrah site, adverse impacts could be expected to a small number of sites: primarily a residence associated with the historic Big Hurrah Quartz Mine, a landfill, and an adit. Mitigation measures will be established through SHPO and USACE. Any potentially significant artifacts identified during mining operations will be preserved on site or in Nome. With proper documentation and preservation, the loss of historic knowledge will be minimized.</p>	<p>(a-b) The No Action Alternative not impact historic, prehistoric, or archaeological resources.</p>

Bering Straits Coastal Resource Service Area (CRSA) Enforceable Policies

<p>(A) Subsistence – Subsistence uses shall receive priority.</p>	<p>As the mine areas have a relatively small footprint and are currently privately owned and closed to the public, no adverse impact to the substance use priority is expected as a result of Alternatives 1 or 2. Subsistence and mining have co-existed in the area for 100 years. Subsistence resources are abundant throughout the region. The project is not expected to adversely impact local resident's subsistence lifestyle.</p>	<p>The No Action Alternative would not impact the subsistence use priority.</p>
<p>(B) Habitat and Biological Resource Protection – The capacity of habitat to support living resources shall be maintained or enhanced.</p>	<p>Alternatives 1 and 2 have been designed to limit adverse impact to habitat, particularly wetlands. The habitat types to be affected by the proposed project are widespread across the generally undeveloped region surrounding the mine sites. The proposed project would include the reclamation of big Hurrah Creek that has been negatively impacted by historical placer mining operations, which would result in a positive impact to this habitat.</p>	<p>The No Action Alternative not impact the habitats in the coastal area. The stream habitats impacted by historic placer mining operations would remain in the current state.</p>
<p>(C) Air, Land, and Water Quality – State and federal regulations pertaining to the protection of air, land, and water quality shall be followed, and adverse impacts to air, land, and water quality shall be minimized.</p>	<p>Alternative 1 and 2 call for reclaiming the site to a stable condition. Baseline groundwater and surface water quality in the project area has been established through an extensive monitoring program. Alternatives 1 and 2 have been designed to minimize impact to groundwater and surface water quality. Potential adverse impacts to air quality have been identified, and will be minimized by drawing the majority of</p>	<p>The No Action Alternative would not impact air, land, or water quality.</p>

	necessary power for the mine from the existing electrical grid. All ADEC regulations pertaining to air, land, and water quality shall be adhered to.	
(D) Historic, Prehistoric, and Archaeological Sites – Archaeological, prehistoric, and historic resources shall be protected from adverse impacts and a review shall be conducted prior to project activities to identify any known areas of archaeological, prehistoric, or historic importance are located in the project area.	Archaeological surveys were conducted at both mine sites, and identified a total of 29 cultural resources. Most of the identified resources are related to historic mining activities. No prehistoric or archaeological resources were identified. At the Rock Creek Mine site, no adverse impact is expected to cultural resources. At the Big Hurrah site, adverse impacts could be expected to a small number of sites primarily a residence associated with the historic Big Hurrah Quartz Mine, a landfill and an adit. Mitigation measures will be established through SHPO and USACE. Any potentially significant artifacts identified during mining operations will be preserved on site or in Nome. With proper documentation and preservation, the loss of historic knowledge as a result of Alternatives 1 or 2 will be minimized.	The No Action Alternative not impact historic, prehistoric, or archaeological resources.
(E) Geophysical Hazards – When feasible, new development shall not be sited in a geophysical hazard area. When necessary, development in geophysical hazard areas shall be designed and planned to minimize potential damage, injury, or adverse impact to the environment.	Seismic risks have been identified as minimal in the project areas. For Alternatives 1 and 2, project facilities have been sited, designed, and constructed to minimize property damage and loss of life as a result of seismic or other geophysical hazards.	The No Action Alternative would not involve development in geophysical hazard areas.
(F) Coastal Development – Priority shall be given to water-dependent and water-related uses	Alternatives 1 and 2 would not impact water-dependent or water-related uses or activities	The No Action Alternative would not impact water-dependent or

and activities.	in the project areas. Permit applications have been submitted that detail how the project would comply with USACE regulations.	water-related uses or activities in the project area, and would not involved placement of structures or fill materials into coastal waters.
(G) Mining and Mineral Processing – When feasible, new development shall be sited to avoid impacts to potential extraction of mineral deposits. Mining sand and gravel from streams and off-shore sources shall be avoided, as shall disposal of overburden into lakes.	The mine sites are located within historic mining areas, and the proposed mining and mineral processing activities associated with Alternatives 1 and 2 would be compatible with adjacent uses, the Alaska Coastal Standards, state and national needs, and district programs. Mining and mineral processing would be conducted within local, state, and federal regulations. No sand and gravel will be extracted from coastal waters, intertidal areas, barrier islands, or spits.	The No Action Alternative would not involve mining or mineral processing.
(H) Energy Facilities – When feasible, existing energy facilities shall be used rather than developing new facilities. When necessary, new energy facilities shall be sited to avoid adverse impacts to the coastal zone.	Electric power will be provided to the Rock Creek Mine from an existing facility via a new power line sited along an existing road. Electric power for the Big Hurrah Mine will be provided by a small diesel generator, as there are no existing, nearby electric power sources. For both Alternatives 1 and 2, the new power line and new generator are designed and sited to minimize adverse impacts while satisfying the mine's power requirements.	The No Action Alternative would not involve the development of new energy facilities.
(I) Transportation and Utility Systems – Transportation and utility corridors shall be sited, designed, and operated to avoid adverse impacts to the coastal zone.	For both Alternatives 1 and 2, existing transportation and utility corridors and facilities are used. Short access roads on private land and powerlines will be necessary to access the mine sites from the existing transportation and utility corridors. These new roads and powerlines shall be sited,	The No Action Alternative would not involve the development of new transportation or utility routes or facilities.

	designed, and constructed to be compatible with district programs. No new transportation or utility corridors or facilities will be constructed on beaches or below shorelines.	
(J) Recreation – The state and federal government are encouraged to provide Bering Straits CRSA an opportunity to participate in recreation planning.	Recreational use in the Snake River and Big Hurrah River valleys currently includes: hunting, fishing, use of recreational cabins, bird-watching, dog mushing, and sightseeing. The project activities associated with Alternatives 1 and 2 would take place within a relatively small footprint which is currently private property and closed to public access. Access to the valleys for continued recreational use would not be significantly impacted. Alternatives 1 and 2 would not impact access to coastal water.	The No Action Alternative would not impact recreational use of the Snake River or Big Hurrah River Valleys or access to coastal water.
(K) Disposals of Interest – The Bering Straits CRSA shall participate in the planning process for State land disposals.	Alternatives 1 and 2 would not involve State land disposals.	The No Action Alternative would not involve State land disposals.
(L) Timber – Best management practices shall be used in all commercial forestry and timber harvest activities.	Alternatives 1 and 2 would not involve timber harvest or processing.	The No Action Alternative would not involve timber harvest or processing.
(M) Coastal Access and Easements – Recreational, industrial, and commercial users shall utilize permitted or identified easements through private lands.	Alternatives 1 and 2 would take place entirely on private land owned by the mine developer or parties already in agreement with the developer. No use of easements through private lands would be necessary.	The No Action Alternative would not require the use of easements through private lands.